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gastrointestinal tract

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gastrointestinal tract (gas-tro-in-tes-tin-al 'trakt)

(anatomy) The stomach and intestine.

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Gastrointestinal tract

The gastrointestinal tract starts with the oral cavity (mouth) and proceeds to the esophagus, the stomach, the duodenum, the small intestine, the large intestine, the rectum and the anus.

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gastrointestinal tract (gas-tro-in-TES-tuh-nuhl)

The stomach and intestines; the path that food follows once it leaves the esophagus.

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gastrointestinal tract

n.

The part of the digestive system consisting of the stomach, small intestine, and large intestine.

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Note: click on a word meaning below to see its connections and related words.

The noun gastrointestinal tract has one meaning:

Meaning #1: tubular passage of mucous membrane and muscle extending about 8.3 meters from mouth to anus; 1 elimination

Synonyms: [alimentary canal](#), [alimentary tract](#), [digestive tube](#), [digestive tract](#), [GI tract](#)

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gastrointestinal tract

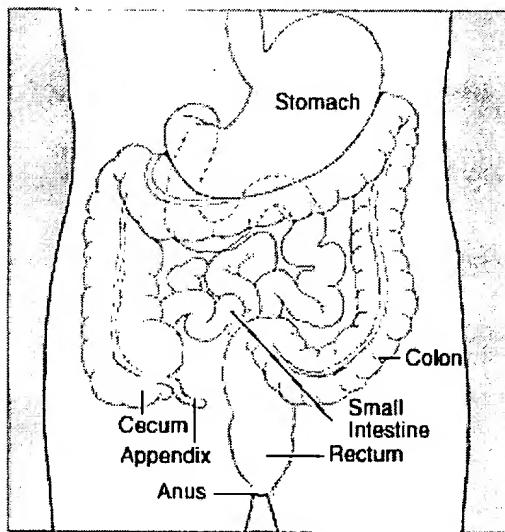
"Gut" redirects here. For the physiological acronym 'GUT', see [genitourinary tract](#). For the Physics term 'unification theory'.

The **gastrointestinal tract** or **digestive tract**, also referred to as the **GI tract** or the **alimentary canal** or the **gut**, **multicellular animals** which takes in [food](#), [digests](#) it to extract energy and [nutrients](#), and expels the remaining w.

The GI tract differs substantially from animal to animal. For instance, some animals have multi-chambered stomachs.

Basic anatomy

The gut



In a normal [human](#) adult male, the GI tract is approximately [7 and a half metres long \(25 feet\)](#) and consists of th

Upper gastrointestinal tract

- [Mouth](#) (buccal cavity; includes [salivary glands](#), [mucosa](#), [teeth](#) and [tongue](#))
- [Pharynx](#)

- Oesophagus or Esophagus (gullet) and cardia
- Stomach, which includes the antrum and pylorus and pyloric sphincter.

Lower gastrointestinal tract

- Bowel or intestine:
 - small intestine, which has three parts:
 - duodenum
 - jejunum
 - ileum
 - large intestine, which has three parts:
 - caecum (the vermiform appendix is attached to the cecum).
 - colon (ascending colon, transverse colon, descending colon and sigmoid flexure)
 - rectum
- anus

Related organs

The liver secretes bile into the small intestine via the biliary system, employing the gallbladder as a reservoir. It isosmotic fluid containing bicarbonate and several enzymes, including trypsin, chymotrypsin, lipase, and pancreatic nucleolytic enzymes, into the small intestine. Both these secretory organs aid in digestion.

Physiology

Digestion and excretion

Main article: Digestion

In the mouth, food is broken down mechanically by the teeth and tongue, and also broken down chemically to some extent. The mouth contains an enzyme known as salivary amylase. It then passes through the esophagus by means of peristalsis to the stomach. The breakdown continues. This is still mostly mechanical, as relatively large parts of food (now called "bolus") are passed. However, slight amounts of chemical processing also take place at this point, especially on protein, by the action of the stomach. The food then passes to the small intestine where further breakdown occurs, by enzymes and with the absorption of nutrients into the bloodstream. The remaining particles pass through the large intestine and are ultimately eliminated.

Digestion is regulated both hormonally and by the autonomic nervous system:

- The major hormones that control the functions of the digestive system are produced and released by cells in the gastrointestinal tract and small intestine. These hormones, such as secretin, gastrin and cholecystokinin, are released into the blood and stimulate digestive juices and cause organ movement.
- The two arms of the autonomic nervous system both influence the digestive process; parasympathetic nerves stimulate peristalsis while the sympathetic influence is more inhibitory.

Specialization of organs

Four organs are subject to specialization in the kingdom Animalia.

- The first organ is the tongue which is only present in the phylum Chordata.
- The second organ is the esophagus. The crop is an enlargement of the esophagus in birds, insects and other invertebrates. It is used to store food temporarily.
- The third organ is the stomach. In addition to a glandular stomach (proventriculus), birds have a muscular ventriculus or "gizzard." The gizzard is used to mechanically grind up food.
- The fourth organ is the large intestine. An outpouching of the large intestine called the cecum is present in rabbits. It aids in digestion of plant material such as cellulose.

Immune function

The gastrointestinal tract is also a prominent part of the immune system (Coico *et al* 2003). The low pH (ranging fatal for many microorganisms) that enter it. Similarly, mucus (containing IgA antibodies) neutralize many of these in the GI tract help with immune function as well, including enzyme in the saliva and bile. Health enhancing inte the overgrowth of potentially harmful bacteria in the gut.

Uses of gut

- The use of animal gut strings by musicians can be traced back to the third dynasty of Egypt. In the recent lamb gut. With the advent of the modern era, musicians tend to use synthetic strings made of nylon, silk or orchestral violinists still use gut strings. Although such strings were commonly referred to as "catgut" string source for gut strings.
- Sheep gut was the original source for natural gut string used in racquets, such as for tennis. Today, synthetic common, but the best strings are now made out of cow gut. Gut cord has also been used to produce strings for the snare drum's characteristic buzzing timbre, although the snare drum almost always uses metal wire for era, the North African bendir frame drum still uses gut for this purpose.
- "Natural" sausage hulls are made of animal gut, especially pig and cow
- Animal gut was used to make the cord lines in longcase clocks, but may be replaced by wire

References

- National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health.
- Coico, R., Sunshine, G., and Benjamin, E. (2003) "Immunology: A short Course 5th ed." Pgs 11-12.

External links

- [Anatomy atlas of the Digestive System](#)

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gut (güt)

n.

- a. The alimentary canal or a portion thereof, especially the intestine or stomach.
- b. The embryonic digestive tube, consisting of the foregut, the midgut, and the hindgut.
- 2. guts The bowels; entrails; viscera.
- 3. *Slang*.
 - a. Innermost emotional or visceral response: *She felt in her gut that he was guilty*.
 - b. guts The essential components or inner working parts: *"The best part of a good car . . . is its guts"*
- 4. guts *Slang*.
 - a. Courage; fortitude.
 - b. Nerve; audacity.
- 5. *Slang*. A gut course.
- 6. A thin, tough cord made from the intestines of animals, usually sheep, used as strings for musical instruments.
- 7. A narrow passage or channel.
- 8. Fibrous material taken from the silk gland of a silkworm before it spins a cocoon, used for fishing tackle.

tr.v., gut·ted, gut·ting, guts.

- 1. To remove the intestines or entrails of; eviscerate.
- 2. To extract essential or major parts of: *gut a manuscript*.
- 3. To destroy the interior of: *Fire gutted the house*.
- 4. To reduce or destroy the effectiveness of: *A stipulation added at the last minute gutted the ordinance*.

adj. Slang.Arousing or involving basic emotions; visceral: *"Conservationism is a gut issue in the West"* (Saturday Review).*idiom:*gut it out *Slang*.

To show pluck and perseverance in the face of opposition or adversity.

[From Middle English guttes, entrails, from Old English guttas.]

gutty *gut'ty adj.*

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gut

noun

The quality of mind enabling one to face danger or hardship resolutely. [braveness](#), [bravery](#), [courage](#), [cour](#), [doughtiness](#), [fearlessness](#), [fortitude](#), [gallantry](#), [gameness](#), [heart](#), [intrepidity](#), [intrepidness](#), [mettle](#), [nerve](#), [stoutheartedness](#), [undauntedness](#), [valiance](#), [valiancy](#), [valiantness](#), [valor](#). *Informal* [spunk](#), [spunkiness](#). *Slang* [fear/courage](#).

adjective

Of, relating to, or arising from one's mental or spiritual being: [inner](#), [interior](#), [internal](#), [intimate](#)¹, [inward](#),

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gut

In addition to the idiom beginning with gut, also see [bust a gut](#); [hate someone's guts](#); [have the guts](#).

Other idioms beginning with gut:

[gut it out](#)

[gutter](#)

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gut
adj

Definition: intuitive

Antonyms: material, physical

v

Definition: clean out, strip

Antonyms: fill

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gut (güt)
n.

1. The alimentary canal or a portion thereof, especially the intestine or stomach.
2. The embryonic digestive tube, consisting of the foregut, the midgut, and the hindgut.
3. guts The bowels; entrails; viscera.
4. A thin, tough cord made from the intestines of animals, usually sheep, used as suture material in surgery.

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The noun gut has 2 meanings:

Meaning #1: the part of the alimentary canal between the stomach and the anus
Synonyms: [intestine](#), [bowel](#)

Meaning #2: a strong cord made from the intestines of sheep and used in surgery
Synonym: [catgut](#)

The verb gut has 2 meanings:

Meaning #1: empty completely; destroy the inside of

Meaning #2: remove the guts of

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Translations for: Gut

Dansk (Danish)

n. - tarm, gut, mave, mad, snæver passage, pølse, let kursus
v. tr. - rense, tage indmaden ud af, udkerne, skære op, plyndre
adj. - hoved-, vigtigst

idioms:

- bust a gut arbejde hårdt
- hate a person's guts ikke kunne fordrage en person
- spill one's guts røbe en hemmelighed
- work one's guts out slide sig en pukkel til

Nederlands (Dutch)

n. darm(kanaal), (mv) lef, (mv) buik/maag, (mv) kern van een zaak, garen voor vislijn/ vioolsnaar, enkte, uithollen
 ontweien, uittreksel maken van boek, instinctief, fundamenteel

Français (French)

n. - bide, brioche, (Anat) intestin, boyau (d'une raquette), entrailles (npl), tripes (npl), cran (npl)
 v. tr. - (Culin) vider, détruire, ravager (par le feu), saccager (un magasin), refaire (dans une maison)
 adj. - viscéral, instinctif, premier

idioms:

- bust a gut travailler très dur, se casser les reins
- spill one's guts divulguer/révéler un secret
- work one's guts out se casser les reins

Deutsch (German)

n. - Darm, (med.) Katgut, Eingeweide, Kern, enger Durchgang, Schneid
 v. - ausnehmen, das Innere zerstören, exzerpieren
 adj. - grundlegend, gefühlsmäßig

idioms:

- bust a gut (ugs.) sich totarbeiten
- spill one's guts die innersten Gefühle preisgeben
- work one's guts out sich abarbeiten

Ελληνική (Greek)

n. - έντερο, στομάχι, χορδή μουσικού οργάνου, (πληθ.) εντόσθια, σωθικά, (καθομ.) κότσια, τσαγανό
 v. - ξεκοιλιάζω (κν. ξεντερίζω), κατακαίω, καταστρέφω ή αφαιρώ το εσωτερικό (σπιτιού κ.λπ.)
 adj. - ενστικτώδης, θεμελιώδης

idioms:

- bust a gut κόβω τον κώλο μου
- hate a person's guts μισώ όσο τις αμαρτίες μου
- spill one's guts (καθομ.) ομολογώ τα πάντα, τα ξερνάω όλα
- work one's guts out ξεθεώνομαι στη δουλειά

Italiano (Italian)

budella, stomaco (anche nel senso di coraggio), sventrare, intuitivo, di stomaco, coraggio

idioms:

- bust a gut sgobbare
- hate a person's guts aborrire una persona
- spill one's guts spiattellare i segreti
- work one's guts out lavorare molto duramente (per ottenere qualcosa in breve tempo)

Português (Portuguese)

n. - intestino (m) (Anat.), corda (f) feita de tripa, passagem (f) estreita, coragem (f)
 v. - destripar, devastar
 adj. - visceral

idioms:

- bust a gut tentar fazer algo a qualquer custo
- hate a person's guts desprezar profundamente
- spill one's guts falar muito sobre algo (especialmente quando se está chateado)
- work one's guts out trabalhar duro

Русский (Russian)

кишка, живот, выдержка, струна, кетгут, потрошить, опустошать, схватывать суть (книги), бегло просматри сущностный, инстинктивный

idioms:

- bust a gut поднапрячься
- hate a person's guts не принимать кого-л. на дух
- spill one's guts расколоться (на допросе и пр.)
- work one's guts out надрываться (на работе и пр.)

Español (Spanish)

n. - intestino, tripa, barriga, agallas, energía, determinación, fuerza

v. tr. - destripar, limpiar, vaciar, resumir, extraer lo esencial

adj. - visceral, fundamental, esencial

idioms:

- bust a gut desternillarse o troncharse de risa, herniarse, echar los bofes, trabajar duro
- spill one's guts revelar un secreto, contar todo
- work one's guts out trabajar muy duro, deslomarse, echar los bofes

Svenska (Swedish)

n. - tarm, tarmsträng, tafs (till metrev), sund

v. - rensa (fisk), tömma, dra ur det viktiga ur (en bok)

adj. - instinktiv känsla

中文 (简体) (Chinese (Simplified))

肠, 肠子, 勇气, 毅力, 胆量, 内脏, 内容, 实质, 本质, 取出内脏, 摧毁内部装置, 本质的, 根本的, 容易的, 简单的, 极重

idioms:

- bust a gut 努力做...
- hate a person's guts 对某人恨之入骨
- spill one's guts 告密
- work one's guts out 拼命工作

中文 (繁體) (Chinese (Traditional))

n. - 肠, 肠子, 勇氣, 毅力, 膽量, 內臟, 內容, 實質, 本質

v. tr. - 取出內臟, 摧毀內部裝置

adj. - 本質的, 根本的, 容易的, 簡單的, 極重要的

idioms:

- bust a gut 努力做...
- hate a person's guts 對某人恨之入骨
- spill one's guts 告密

- work one's guts out 拼命工作

한국어 (Korean)

n. - 소화관, 내용, 좁은 수로
 v. tr. - 내용물을 제거하다, 파괴하다, 요점을 뽑아내다
 adj. - 본능의, 근본의

idioms:

- work one's guts out 죽도록 일하다

日本語 (Japanese)

n. - 腸, 内臓, はらわた, 内容, 中身, 核心, 内部, あつかましさ, 根気, 根性, 勇氣, 狹い水路, てぐす
 adj. - 肚の底からの, 根本的な, 直感的な
 v. - ...のはらわたを抜く, 中身を除去する, 中身を破壊する, 要所を抜き取る, 斜め読みする

العربيه (Arabic)

(الاسم) القناة الهضمية, المعدة : احشاء (فعل) يخرج احشاء (السمكة مثل) (صفة) شجاع

עברית (Hebrew)

מעי, גיד, מיתר, מיצר מים, מעבר צר, אומץ (ברבים) - ח
 רוקן או הרס תכליות בית, החזיא המעים, כילה באש, תימצת (ספר וכך) - ח
 adj. אינסטינקטיבי, יסודי - ח

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